

First diagnostic test for Alzheimer's and Parkinson's disease on the horizon

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A new blood test that can give an early diagnosis of neurodegenerative disease and distinguish between Parkinson's and Alzheimer's disease could be launched this summer, reports Marina Murphy in SCI's Chemistry & Industry magazine.

Manufacturer, Oklahoma-based proteomics company, Power3 Medical Products, said it plans to sell the test, NuroPro, which would be the first diagnostic test for neurodegenerative diseases on the market, in Greece by Q3 with further plans for it to go on the US market by late Q3 or Q4."

"There is currently no diagnostic test for any neurodegenerative disease on the market – diagnoses are currently based solely on a clinical diagnosis of symptoms," said chief executive, Steve Rash.

Power3 has identified and patented several blood proteins(1) associated with neurodegenerative disease. The test NuroPro measures a suite of 59 protein biomarkers, the relative levels of which, they say, can help distinguish between Parkinson's, Alzheimer's and Lou Gehrig's disease or tell whether a patient is disease free. The test is highly accurate with a specificity and sensitivity in the high 90s, according to Rash.

Although the test has been welcomed by Kieran Breen, director of research at the Parkinson's Disease Society, as being particularly useful for monitoring the progression of disease and assessing the effectiveness of drugs, he urged caution saying: "While the test seems promising,



larger studies need to be conducted before it can be confirmed as being helpful in making a diagnosis."

Susan Sorensen, head of research at the UK Alzheimer's Society said: "There are 700,000 people living with dementia in the UK, 62 per cent have Alzheimer's disease and this will rise to more than a million in less than 20 years. An effective blood test would present those diagnosed and their families with an opportunity to prepare for the impact of this devastating illness and make crucial decisions about their future.

"The method, known as proteomics, involves analysing proteins in the blood although it remains unclear which group of proteins gives the definitive signs of Alzheimer's disease... Some suggest Alzheimer's, for example, is too complex to be identified in this way."

Two clinical validation studies are currently underway at the Cleo Roberts Center of Clinical Research in Arizona, US, and the Research Institute of Thessaly in Greece.

(1) Expert Review of Proteomics 2008, 5(1), 1-8; Biochemical and Biophysical Research Communications 2006, 342, 1034-1039

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